CLAIMS

1. A recording medium having a video stream and an entry map recorded thereon, wherein

the entry map indicates a plurality of entry points in the video stream, in one-to-one correspondence with a plurality of entry times and flags, and

each flag indicates whether a picture located at a corresponding entry point is for causing decoder refresh.

2. The recording medium according to Claim 1, wherein

the video stream represents one angle image contained in a multi-angle section, and

a location of a picture for causing decoder refresh is at an angle changeable point from another angle image contained in the multi-angle section.

3. The recording medium according to Claim 2, wherein

the video stream on the recording medium is composed of a plurality of segments, and

an angle changeable point coincides with a start point of a segment.

4. The recording medium according to Claim 3, further having recorded thereon:

a plurality of management information files; and

playback section information, wherein

the playback section information defines a start point

and an end point of the multi-angle section in the video stream, and includes a field storing names of the management information files, and

the entry map is contained in one of the management information files.

5. A playback apparatus for executing playback of a video stream based on an entry map, the entry map indicating a plurality of entry points in the video stream in one-to-one correspondence with a plurality of entry times and flags, said playback apparatus comprising:

a reading unit operable to read pictures contained in the video stream from a recording medium;

a playback unit operable to play back the read pictures; and

a control unit operable, in response to a request to start playback from a given temporal point, to (i) specify a nearby entry time to the requested temporal point from among entry times each with a flag set to ON and (ii) cause the reading unit to read the video stream starting from an entry point corresponding to the specified entry time.

6. The playback apparatus according to Claim 5, further comprising:

a picture buffer operable to store a plurality of reference pictures; and

a decoder operable to perform motion compensation using the reference pictures, wherein

the video stream includes, at each entry point with the flag set to ON, an intra picture for causing decoder refresh, and

the decoder is operable to clear content of the picture buffer when decoding any of the intra pictures for causing decoder refresh.

7. The playback apparatus according to Claim 5, wherein

the recording medium has recorded thereon a plurality of management information files and playback section information, and

the playback section information defines a start point and an end point of a multi-angle section in the video stream, and includes a field storing names of the management information files,

the playback apparatus further comprising:

a status register operable to store a value indicating an angle image to be played back; and

an update unit operable to update the value stored in the status register in accordance with a user operation, wherein

the reading unit is operable to read a management information file indicated by the updated value of the status register, from among the management information files whose names are stored in the playback section information, and

the entry map used by the control unit is contained in the read management information file.

8. The playback apparatus according to Claim 7, wherein

the recording medium has recorded thereon a plurality of AV files,

the video stream read by the reading unit is contained in an AV file having a same name with the read management information file, and

the reading unit is operable to read the video stream starting from one of a plurality of extents of the AV file, said one extent containing an entry point corresponds to the specified entry time.

9. A program for causing a computer to execute playback of a video stream recorded on a recording medium,

the recording medium having recorded thereon an entry map that indicates a plurality of entry points in the video stream, in one-to-one correspondence with a plurality of entry times and flags,

said program comprising code operable to cause the computer to perform:

a step of reading pictures contained in the video stream from a recording medium;

a step of playing back the read pictures; and

a step of controlling so as to cause, in response to a request to start playback from a given temporal point, (i) an entry time that is near the requested temporal point to be specified from among entry times each with a flag set to ON and (ii) the reading of the video stream in the reading step to be started from an entry point corresponding

to the specified entry time.

10. A playback method for executing playback of a video stream recorded on a recording medium,

the recording medium having recorded thereon an entry map that indicates a plurality of entry points in the video stream, in one-to-one correspondence with a plurality of entry times and flags,

said playback method comprising:

a step of reading pictures contained in the video stream from a recording medium;

a step of playing back the read pictures; and

a step of controlling so as to cause, in response to a request to start playback from a given temporal point, (i) an entry time that is near the requested temporal point to be specified from among entry times each with a flag set to ON and (ii) the reading of the video stream in the reading step to be started from an entry point corresponding to the specified entry time.